Ramsdell Silt Loam 82-ID-0564 (821D-009-11)

Classification: coarse-silty, mixed, nonacid, frigid Typic Haplaquepts.

General Site Characteristics

Location: Benewah County, Idaho; 460 feet east and 1450 feet south of northwest corner of sec. 20, T. 46N., R. 1E.; approx. 1 mi. NW of St. Joe, Idaho.
Forest:
Area: St Joe SSA
Described By/Date: Soil Conservation Service personnel on October 13, 1982
Parent Rock/Material: alluvial sediments
Habitat Type: pasture grasses, forbes, clover
Topography: nearly level

Landform: flood plain	Climate:
Weathering:	Precipitation:
Formation Name:	Erosion:
Slope:	Infiltration:
Aspect:	Permeability: moderate
Elevation: 2133 feet	Storage:
Soil Depth:	Drainage: very poorly
Eff. Rooting Depth:	Air Temp:
Litter Type:	Soil Temp at 20 inches:
Surface Rock:	Salt/Alkal:

Remarks:

Pedon Description

A 0-15 cm. Light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; weak fine subangular blocky structure parting to weak fine and medium granular structure; slightly hard, friable, slightly sticky and slightly plastic; very strongly acid pH 5.0; many very fine, fine, and medium roots; many very fine and fine, few medium tubular pores; ci2d dark brown (10YR 3/3) and dark yellowish brown (10YR 3/4) and dark brown (7.5YR 3/4); clear wavy boundary.

Bgi 15-28 cm. Light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moist; weak fine and medium subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.1; common very fine, fine, and medium roots; common very fine and fine tubular pores; discontinuous thin (1 in.) band of darker silt loam material very dark brown (10YR 2/2) moist; few iron stains concentrated along root channels; common very fine mica flakes; clear wavy boundary.

Bg2 28-71 cm. Light brownish gray (2.5Y 6/2) silt loam, dark grayish brown (2.5Y 4/2) moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.4; common very fine, few fine and medium roots; common very fine and fine tubular pores; few iron stains concentrated along root channels; clear wavy boundary.

Bg3 71-91 cm. Light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; moderate medium and coarse subangular blocky structure; slightly hard, friable, slightly sticky and slightly plastic; strongly acid pH 5.4; common very fine, few fine roots; few very fine and fine tubular pores; two inch bands of darker dark brown (10YR 3/3) moist silt loam material possibly old root channels; abrupt wavy boundary.

Bgt4 91-140 cm. Light gray (2.5Y 7/2) silt loam, grayish brown (2.5Y 5/2) moist; moderate medium and coarse subangular blocky structure; hard, firm, slightly sticky and slightly plastic; moderately acid pH 5.7; few very fine and fine roots; few very fine, fine, and medium tubular pores; few thin and moderately thick clay films lining pores; compacted soil material; textural Bt horizon not an argillic; gradual wavy boundary.

Bgt5 140-158 cm. White (2.5Y 8/2) silt loam, light brownish gray (2.5Y 6/2) moist; moderate medium and coarse subangular blocky structure; hard, firm, slightly sticky and slightly plastic; moderately acid pH 5.9; few very fine and fine roots; few very fine, fine, and medium tubular pores; few thin and moderately thick clay films lining pores; compacted soil material; textural Bt horizon not an argillic.

Pedon: Ramsdell Silt Loam 82-ID-0564 (82ID-009-11) Date: June 1984

Sample No.	Horizon	Depth	pH paste	EC@18 J	% Water at Saturation	Available P	Sesquioxides				Spodic
							Di-Citrate Fe	Extract Al	Pyrophosphate Fe	Extract Al	
		cm		mmhos/cm		ppm	%				
1	A	0- 15	5.0	0.26	69	1.6					
2	Bg1	15- 28	5.1	0.16	80	3.3					
3	Bg2	28- 71	5.4	0.11	63	3.6					
4	Bg3	71- 91	5.4	0.10	63	3.1					
5	Bgt4	91-140	5.7	0.09	47	0.6					
6	Bgt5	140-158	5.9	0.12	46	0.6					

Sample No.	Exchangeable Ions				Ext. Acidity	CEC	Base	OM	OC	N	C:N	Soil	
	Ca	Mg	Na	K	H		Saturation					Fraction	NaF pH
	meq/100 gms						%	%			ratio		
1	3.3	0.3	0.2	0.1	15.8	18.6	20	5.69	3.31	0.241	14	1.00	8.7
2	3.9	0.3	0.2	0.1	10.0	12.3	20	4.73	2.75	0.207	13	1.00	8.9
3	5.2	1.3	0.3	0.1	12.2	13.8	36	2.18	1.27	0.090	14	1.00	8.8
4	7.9	3.5	0.4	0.1	11.5	12.5	51	1.85	1.07	0.102	10	1.00	8.5
5	3.6	2.8	0.2	0.2	7.9	18.5	46	0.52	0.30	0.034	9	1.00	8.6
6	5.7	4.0	0.4	0.2	7.1	13.0	59	0.48	0.28	0.043	7	1.00	8.5

Remarks: CEC's were leached 10% acidified NaCl.
CEC's and nitrogens were run by steam distillation.
Extractable cations were run on the Jarrell Ash atomic absorption.

Analysis by: Debbie Eisinger

Pedon: Ramsdell Silt Loam 82-ID-0564 (82ID-009-11) Date: May 1984

Depth	Particle Size Distribution (mm)								Gravel & Stone		Textural
	VCS	CS	MS	FS	VFS	TS	TSi	TC	>2 mm		
	2-1.0	1-0.5	0.5-0.25	0.25-0.1	0.1-0.05	2-0.05	0.05-0.002	<0.002	wt.	vol.	Classes
cm	%								%		
0- 15	1.70	0.42	0.87	4.76	7.02	14.77	73.59	11.63	none		Silt loam
15- 28	0.05	0.10	0.10	0.49	2.68	3.42	80.94	15.63	none		Silt loam
28- 71	0.01	0.05	0.04	0.40	2.61	3.12	83.49	13.40	none		Silt loam
71- 91	0.02	0.03	0.02	0.08	0.75	0.91	78.15	20.95	none		Silt loam
91-140	0.01	0.04	0.02	0.82	2.79	3.68	81.41	14.91	none		Silt loam
140-158	0.05	0.03	0.02	0.69	3.40	4.17	82.88	12.95	none		Silt loam

Depth	Silt Size Distribution (mm)			Bulk Density		Water Content		Liquid Limit	Plastic Limit	Plastic Index
	CoSi	MSi	FSi	Clod	Core	1/3 Bar	15 Bar			
	0.05-0.02	0.02-0.005	0.005-0.002							
cm	%			g/cc		%		%		
0- 15						48.8	21.3			
15- 28						57.9	27.5			
28- 71						51.3	13.7			
71- 91						52.9	19.8			
91-140						37.6	12.8			
140-158						39.4	12.9			

Remarks: Samples were run by the centrifuge method, 5% sodium hexametaphosphate added, sonified, and carbonates were not removed.

Analysis by: Anita L. Falen